

## **REMARKS**

The indicated allowability of claims 22-26 is gratefully acknowledged.

The phrase “adapted to be” has been removed from claim 15.

Applicants respectfully request reconsideration of the rejection of independent claim 15 as being obvious over U.S. Patent No. 6,559,996 to Miyamoto in view of U.S. Patent No. 5,799,119 to Rolland.

The Examiner admitted, on page 4 of the Action, that Miyamoto failed to disclose applicants’ claimed “*electro-optical modulator having at least one element with an optical path length adapted to be modified by an electrical driver*”, but contended that this missing feature was disclosed by Rolland, and that combining the teachings of Miyamoto and Rolland would result in a solution as defined in applicants’ claim 15.

However, as indicated by the Examiner, Rolland discloses supplying a voltage to waveguide arms of a double-Y component in order to change the refractive index. This, in turn, modifies the phase of the light propagating through the waveguide (see col. 7, lines 5-11).

Upon reconsideration, the Examiner will note that Rolland is *silent* about modifying the optical path length. In Rolland, the applied voltage changes the refractive index of the material of the waveguide, which means that the speed of light changes in the section of the waveguide where the voltage is applied. When the refractive index is different in both waveguide arms, then at the Y junction, the two optical signals have different phases due to the different times of travel through the two waveguide arms, which, in turn, is a result of the different speed of light in these two waveguides.

This is completely different from what is required in claim 15, i.e. [...] element with an optical path length modified by an electrical driver. Therefore, even if the teachings of Miyamoto and Rolland were combined as proposed, the resulting solution would still be different from the one defined in claim 15.

In consequence, claim 15 and its dependent claims are both novel and non-obvious over the applied art.

Wherefore, a favorable action is earnestly solicited.

Respectfully submitted,

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